

## CLAIMS

1. A liquid chromatography system including:  
  
a separation column having an internal bore;  
  
an end fitting fitted at one side to an end of the separation column; and  
  
transfer tubing fitted to the opposite side of the end fitting ;  
  
wherein the separation column, transfer tubing, and end fitting are constructed as a sealed integral system.
2. A system according to claim 1, wherein the separation column is a micro, capillary, or nano liquid chromatography column.
3. A system according to claim 1 or 2, wherein the internal diameter of the internal bore of the separation column is in the range 0.025mm – 2.1mm.
4. A system according to claim 3, wherein the internal diameter of the internal bore of the separation column is in the range 0.030mm – 1.0mm.
5. A system according to any one of claims 1 to 4, wherein the liquid chromatography system further includes a protective outer tubular sheath surrounding the separation column.
6. A system according to claim 5, wherein the end fitting includes a double ferrule incorporating a frit.
7. A system according to claim 6, wherein the double ferrule includes central bore which aligns with the bore of the separation column and the bore of the transfer tubing when the system is assembled.

8. A system according to claim 6 or 7, wherein the double ferrule is formed as a double-conical shaped component, tapering from the middle of the ferrule to either end of the ferrule.
9. A system according to any one of claims 6 to 8, wherein the bore of the double ferrule is stepped to accommodate a separation column and transfer tubing of different outer diameters.
10. A system according to any one of claims 6 to 9, wherein the double ferrule is permanently collapsed so as to fix the capillary column into one end and the transfer tubing into its other end.
11. A system according to any one of claims 6 to 10, wherein the frit of the double ferrule is a wire mesh frit or a polymer or metal frit formed in the ferrule.
12. A system according to any one of claims 6 to 10, wherein the frit is formed inside the end of the separation column or transfer tubing.
13. A system according to any one of claims 6 to 12, wherein the separation column extends midway along the bore of the double ferrule up to one side of the frit.
14. A system according to claim 13, wherein the transfer tubing is received within the bore of the double ferrule and extends midway along the length of the double ferrule up to the side of the frit opposite the separation column.
15. A system according to any preceding claim, wherein the separation column is made of glass lined metal tubing or fused silica lined polymer tubing.
16. A system according to any preceding claim, wherein the separation column, end fitting, and transfer tubing are permanently joined by gluing, welding or other fixing means into a single unit.